DOCUMENT RESUME

ED 316 158 HE 023 283

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TITLE A Study of the Foreign Language Preparation of New Freshmen (Fall 1985).
INSTITUTION Maryland Univ., College Park. Office of Institutional Studies.
PUB DATE Apr 86
NOTE 28p.
PUB TYPE Statistical Data (110) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS College Freshmen; Higher Education; High School Graduates; *Language Enrollment; *Second Language Learning; Second Language Programs; *Student Characteristics; Undergraduate Students
IDENTIFIERS *University of Maryland College Park

ABSTRACT

The report presents an analysis of the foreign language preparation of first-time undergraduate students at the University of Maryland College Park (UMCP). Basic areas of interest addressed included: the percentage of first-time students with either at least 2 or at least 3 years of preparation in a single foreign language in high school; how the language preparation was distributed among various foreign languages; and characteristics of students who did or did not have at least 2 years or at least 3 years of preparation in a foreign language. A random sample of 398 of the new freshmen as of fall 1985 was chosen for the study. Analysis of high school transcripts indicated: at least 87.4% had completed 2 or more years of a foreign language; at least 59% had completed 3 or more years of a foreign language; completion of a minimum of 2 or 3 years of a foreign language was not significantly related to age, race, or academic division; students from out-of-state had higher rates of language study at the criterion levels than did in-state students; students with higher rates of foreign language study had higher mean SAT scores; greater proportions of women than of men had studied 3 or more years of a foreign language; and lower proportions of part-time students than full-time students had studied 3 or more years of a foreign language. Eleven tables detail the data. (SM)

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A STUDY OF THE FOREIGN LANGUAGE PREPARATION OF NEW FRESHMEN (FALL 1985)

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April 1986

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A Study of the Foreign Language Preparation of New Freshmen (Fall 1985)

At the request of the Administrative Dean for Undergraduate Studies, the Office of Institutional Studies analyzed the foreign language preparation of first-time undergraduate students at UMCP. There has been a great deal of debate concerning the possible effects on size and academic characteristics of future freshman classes if a foreign language entrance requirement were established. Consideration is being given to requiring two or possibly three years of foreign language study in high school for admission to UMCP. This study addressed basic questions of interest including the following: What percentage of first-time students had at least two, or at least three, years of preparation in a single foreign language in high school? How was language preparation distributed among various foreign languages? What are the characteristics of students who did or did not have at least two years of preparation in a foreign language? At least three years of preparation? These questions could not be answered readily because foreign language and other high school transcript data are not captured in the Campus computerized data system. Consequently the study required the selection of a sample of students and retrieval of data from their admissions folders.

Sample Selection

A random sample ($\underline{N}$ = 444) of the 4,522 new freshmen as of Fall 1985 was selected for this study. Twenty-nine students were eliminated because they were not U.S. citizens and were presumed to have a "foreign language" as a first language. With the cooperation of the Office of Undergraduate Admissions, the admissions folders of the remaining 415 students were pulled,

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their high school transcripts were photocopied, and their foreign language preparation was coded and added to their enrollment file records. These computerized records include such variables as: race, major, full-time/part-time status, SAT Verbal and Math scores, birthdate, sex, in-state or out-of-state residence status, and registered credits. Ten folders could not be located and seven folders did not contain any high school transcripts; therefore, the final sample numbered 398. Compared to the population of new freshmen who were U.S. citizens and who enrolled at the College Park Campus for the first time in Fall 1985 (N=4,230), the sample is very similar in terms of such key variables as sex, race, SAT Verbal and Math scores, age, residence status, departmental grouping, and number of registered credits. (See Table 1.)

Current Admissions Requirements

Total SAT scores and high school GPA in academic subjects for grades 9 through 11 are determinants of admission to UMCP. If Maryland residents do not meet the criteria for admission at the end of grade 11, they may be considered via the Individual Admission Program (taking into account personal histories, extra-curricular accomplishments, and/or personal recommendations), or they may be considered when midyear grades are available for the senior year in high school. Out-of-state applicants generally are required to have higher SAT scores and high school grades than the minimum in-state requirements.

The grades for foreign language courses taken in high school are included in the calculation of the academic high school GPA used for admissions purposes, but there is no foreign language requirement. However, the 1985-1986 Undergraduate Catalog states that students "are strongly encouraged to take at least 2 years of a foreign language...." (p.28)

Methodology

This study used the information provided in the students' admissions folders, along with computerized information from applicant and enrollment files. To determine foreign language preparation, a matrix was established for each student. The matrix showed each grade level (7 through 12) for each foreign language. The course level was entered into the appropriate cell. For instance, if a student took (and passed) French I in 9th grade and French II in 10th grade, the cell reflecting French in 9th grade would have a one and the cell for French in 10th grade would have a two. In addition to coding the specific language(s) taken, the level of the course, and the school year in which the course was taken, the length of the high school transcript available was indicated (i.e., 11, 11-1/2, or 12). Most students had transcripts up through the 12th grade; 10 percent of the transcripts included only one semester of 12th grade and 26 percent only went through the 11th grade.

Advanced Placement (AP) courses and honors courses were counted as regular foreign language courses in the following analyses but were also coded as honors courses for possible use in future data analyses. Since most foreign language courses are year-long courses, if the transcript ended mid-year, the first semester of a language was assumed to represent a year of a foreign language. Only courses which students successfully completed (with a passing grade of D or better or the numerical equivalent) were recorded. Foreign language introductory courses (in which a combination of several languages was taught in one year) were recorded separately, but not included in the following data analyses.

Based on the transcript information, the proportions of students who had completed various numbers of years of any one language are as follows:

One or more years -- 96.5%

Two or more years -- 87.4%

Three or more years -- 59.0%

Four or more years -- 25.1%

Five or more years -- 9.0%

Six or more years -- 0.3%

These proportions might be slightly higher if 12th grade coursework information were available for all students.

Table 2 presents the percentages of students who had completed from one to six years of Spanish, French, German, Latin, Hebrew, Italian, Russian and/or Greek. It also presents the percentages who had completed from one to six years of any one language. The most typical preparation in a language was three years; 33.9 percent of the sample had completed three years of any one foreign language. Table 3 indicates the proportions of students having two or more or three or more years of specific languages, and of any one language. The proportions who had completed two or more versus three or more years of any one language are quite different -- 87.4 percent versus 59.0 percent.*

Results

Because of the interest in whether to require two or three years of a foreign language for admission to UMCP, the analysis focused on characteristics of students with and without two years and students with and without three years of preparation in a foreign language. Chi-square analyses and t-tests were performed when appropriate.

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*In addition to the students who had taken three or more years of one language, three percent of the sample had taken two years of one language and one year of another language; 2.3 percent had taken two years each of two languages.

Comparisons for the groups are displayed in Tables 4 through 11. Table 4 presents data by sex of student. Note that there is a significant relationship between sex of student and completion of three or more years of a language. Female students were more likely than males to have completed three or more years of a foreign language.

An analysis by race is given in Table 5. Although somewhat lower proportions of Blacks and higher proportions of Hispanics than of the other groups had completed a minimum of two or of three years of language study, the relationships between race and years of language study were not statistically significant.

Table 6 shows years of foreign language study by students' ages. Mean ages of students who had taken two or more versus less than two years of a foreign language did not differ significantly. Mean ages of those who had taken three or more versus less than three years of a foreign language also did not differ significantly.

Table 7 presents years of foreign language study by departmental groupings. Table 8 presents this information by academic division. Among academic divisions, the lowest proportions of students with two or more or three or more years of foreign language preparation are found in the Division of Arts and Humanities.* In addition, lower proportions of students in the composite category which includes General Studies, Allied Health, and Intensive Educational Development than in the overall sample had completed

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*Chi-square analysis is not reliable for comparing numbers of students in the academic divisions having or not having a minimum of two years of foreign language preparation. This results because the minimum expected cell frequency is less than four. For the comparison of numbers of students in the academic divisions having or not having a minimum of three years of foreign language preparation, the chi-square statistic was not significant ($p = .29$).

three or more years of a foreign language. The relatively low level of language completion in the Division of Arts and Humanities appears to result from the language preparation of students in the departmental grouping of Art, Dance, Theatre, Radio, Television and Film, Speech and Music.

Table 9 gives years of foreign language study by credits attempted in Fall 1985. Because the minimum expected cell frequency is less than four, the chi-square test for two or more versus less than two years of language study is not reliable. However there is a significant relationship between credits attempted and years of language study when one compares those who completed three or more versus less than three years of language study. Those registered for less than 12 credits (i.e., part-time students) were less likely to have completed three or more years of study in a foreign language than were those registered for 12 or more credits.

Table 10 presents data for in-state and out-of-state students. For both levels of language preparation, years of foreign language study were significantly related to billing residence. Out-of-state students were more likely than in-state students to have two or more or three or more years of foreign language study.

Finally, Table 11 presents an analysis of the SAT scores of students with differing numbers of years of foreign language study. For the SAT Verbal score, the SAT Math score, and the Total SAT score, students with more language preparation have significantly higher mean scores than those with less language preparation. These results were found for the comparison of those with two or more versus less than two years of foreign language study and for the comparison of those with three or more versus less than three years of foreign language study.

Discussion

This analysis of the high school transcripts of a random sample of Fall 1985 new freshmen indicates that at least 87.4 percent had completed two or more years of a foreign language. At least 59.0 percent had completed three or more years of a foreign language. In order, the most commonly studied languages were Spanish, French, Latin and German. A few students had studied Hebrew, Italian, Russian, and Greek.

Completion of a minimum of two or of a minimum of three years of a foreign language was not significantly related to the age, race, or academic division of the students. Other student characteristics did differ by years of foreign language study, particularly at the three-year criterion level.

For both the two-year language completion analysis and the three-year language completion analysis, we found: (1) students from out-of-state had higher rates of language study at the criterion levels than did in-state students; (2) students with higher rates of foreign language study had higher mean SAT scores (Verbal, Math, and Total).

For the three-year language completion analysis, but not the two-year analysis, we found the following significant results: (1) greater proportions of women than of men had studied three or more years of a foreign language; (2) lower proportions of part-time students (i.e., those registered for less than 12 credits) than of full-time students had studied three or more years of a foreign language.

TABLE 1

COMPARISON OF SAMPLE TO THE POPULATION
OF FIRST-TIME STUDENTS, FALL 1985

	Sample		Population	
	N	%	N	%
TOTAL	398	100.0	4,230	100.0
Sex				
Women	195	49.0	2,045	48.3
Men	203	51.0	2,185	51.7
Race				
American Indian	0	0.0	8	0.2
Black	41	10.3	497	11.7
Asian	22	5.5	251	5.9
Hispanic	10	2.5	79	1.9
White	325	81.7	3,389	80.1
Unknown	0	0.0	6	0.1
Residence Status				
Maryland	311	78.1	3,223	76.2
Non-Maryland	87	21.9	1,007	23.8
Departmental Grouping				
Division of Ag. & Life Sciences				
Agriculture	5	1.3	72	1.7
Life Sciences	12	3.0	225	5.3
Undecided	2	0.5	44	1.0
Division of Arts & Humanities				
Architecture and Pre-Architecture	6	1.5	93	2.2
Art, Dance, Theatre, RTVF, Speech, Music	19	4.8	184	4.3
Other declared majors	20	5.0	214	5.1
Undecided	8	2.0	34	0.8
Division of Behavioral & Soc. Sci.				
Business and Pre-Business	78	19.6	798	18.9
Other declared majors	33	8.3	343	8.1
Undecided	2	0.5	22	0.5
Division of Human and Comm. Resources				
Education and Pre-Education	11	2.8	131	3.1
Other declared majors	11	2.8	103	2.4
Undecided	0	0.0	4	0.1
Division of Math. & Phys. Sci. & Eng.				
Engineering and Pre-Engineering	68	17.1	738	17.4
Other declared majors	27	6.8	264	6.2
Undecided	3	0.8	13	0.3
Undergraduate Studies				
Undecided major and division	66	16.6	687	16.2
General Studies	6	1.5	35	0.8
Individual Studies	0	0.0	1	0.0
Allied Health	13	3.3	148	3.5
Intensive Educational Development	8	2.0	77	1.8

	Sample			Population		
	N	Mean	Standard Deviation	N	Mean	Standard Deviation
SAT Scores						
Verbal	395	482	82	4,116	477	90
Math	395	533	95	4,116	535	98
Age at Entrance	396	17.8	1.0	4,226	18.1	3.8
Current (Fall 1985) Registered Credits	398	13.7	1.7	4,230	13.5	2.0

Note: Foreign students were eliminated from both the sample and the population.

TABLE 2

PERCENTAGE OF STUDENTS IN SAMPLE WHO HAD
COMPLETED FOREIGN LANGUAGE COURSEWORK, BY LANGUAGE

	Years of Foreign Language Coursework						
Language	0	1	2	3	4	5	6
Spanish	44.7%	6.3%	16.3%	18.3%	9.8%	4.5%	0.0%
French	63.1	4.5	9.8	13.3	5.3	3.8	0.3
Latin	89.7	4.8	4.5	0.8	0.3	0.0	0.0
German	91.2	2.3	3.0	2.0	0.8	0.8	0.0
Hebrew	99.5	0.0	0.0	0.3	0.3	0.0	0.0
Italian	99.5	0.0	0.5	0.0	0.0	0.0	0.0
Russian	99.5	0.5	0.0	0.0	0.0	0.0	0.0
Greek	99.7	0.3	0.0	0.0	0.0	0.0	0.0
Any One Language	3.5%	9.0%	28.4%	33.9%	16.1%	8.8%	0.3%

Note: Each percentage was calculated in reference to the total sample (N = 398).

TABLE 3

YEARS OF FOREIGN LANGUAGE STUDY
BY LANGUAGE

Language	Years of Foreign Language Study	
	Two or More[a]	Three or More[b]
Spanish	49.0%	32.7%
French	32.4	22.6
Latin	5.5	1.0
German	6.5	3.5
Hebrew	0.5	0.5
Italian	0.5	0.0
Russian	0.0	0.0
Greek	0.0	0.0
Any One Language	87.4%	59.0%

Note. Each percentage was calculated in reference to the total sample (N = 398).

[a]Percent having two or more years of the same foreign language.

[b]Percent having three or more years of the same foreign language.

TABLE 4

YEARS OF FOREIGN LANGUAGE STUDY
BY SEX OF STUDENT

Sex	N	Years of Foreign Language Study: Two or More[a]	Less than Two[b]	Three or More[c]	Less than Three[d]
Females	195	90.8%	9.2%	67.2%	32.8%
Males	203	84.2	15.8	51.2	48.8
Total	398	87.4%	12.6%	59.0%	41.0%
		Corrected χ^2 (1, N = 398) = 3.29, p = .07		Corrected χ^2 (1, N = 398) = 9.81, p < .01	

[a] Percent having two or more years of the same foreign language.

[b] Percent having less than two years of the same foreign language.

[c] Percent having three or more years of the same foreign language.

[d] Percent having less than three years of the same foreign language.

TABLE 5

YEARS OF FOREIGN LANGUAGE STUDY
BY RACE OF STUDENT

Race	N	Years of Foreign Language Study			
		Two or More[a]	Less than Two[b]	Three or More[c]	Less than Three[d]
Black	41	80.5%	19.5%	48.8%	51.2%
Asian	22	90.9	9.1	68.2	31.8
Hispanic	10	100.0	0.0	90.0	10.0
White	325	87.7	12.3	58.8	41.2
Total	398	87.4%	12.6%	59.0%	41.0%
		χ^2 (3, $\underline{N}$ = 398) = 3.50, $\underline{p}$ = .32		χ^2 (3, $\underline{N}$ = 398) = 6.52, $\underline{p}$ = .09	

[a] Percent having two or more years of the same foreign language.

[b] Percent having less than two years of the same foreign language.

[c] Percent having three or more years of the same foreign language.

[d] Percent having less than three years of the same foreign language.

TABLE 6

YEARS OF FOREIGN LANGUAGE STUDY
BY AGE OF STUDENT

Age (in years)	N	Years of Foreign Language Study: Two or More[a]	Less than Two[b]	Three or More[c]	Less than Three[d]
16 - 17	116	85.3%	14.7%	55.2%	44.8%
18	260	89.2	10.8	61.9	38.1
19 - 31	20	80.0	20.0	50.0	50.0
Missing data	2	50.0	50.0	0.0	100.0
Total	398	87.4%	12.6%	59.0%	41.0%
Mean Age		17.8	18.0	17.8	17.9
Standard Deviation		0.75	2.00	0.63	1.35
N of Cases		347	49	235	161
		t (50)[e] = .68, p = .50		t (208)[e] = .61, p = .54	

[a] Percent having two or more years of the same foreign language.

[b] Percent having less than two years of the same foreign language.

[c] Percent having three or more years of the same foreign language.

[d] Percent having less than three years of the same foreign language.

[e] Separate variance estimate.

TABLE 7

YEARS OF FOREIGN LANGUAGE STUDY
BY DEPARTMENTAL GROUPING

Departmental Grouping	N	Years of Foreign Language Study: Two or More[a]	Less than Two[b]	Three or More[c]	Less than Three[d]
Div. of Ag. & Life Sciences					
Agriculture	5	60.0%	40.0%	0.0%	100.0%
Life Sciences	12	100.0	0.0	66.7	33.3
Undecided	2	100.0	0.0	100.0	0.0
Div. of Arts & Humanities					
Pre-Arch. & Architecture	6	83.3	16.7	50.0	50.0
Art, Dance, Theatre, RTVF, Speech & Music	19	57.9	42.1	31.6	68.4
Other declared majors	20	80.0	20.0	65.0	35.0
Undecided	8	100.0	0.0	50.0	50.0
Div. of Behavioral & Soc. Sci.					
Business & Pre-Business	78	91.0	9.0	59.0	41.0
Other declared majors	33	93.9	6.1	63.6	36.4
Undecided	2	100.0	0.0	100.0	0.0
Div. of Human & Comm. Resources					
Education and Pre-Education	11	81.8	18.2	45.5	54.5
Other declared majors	11	100.0	0.0	63.6	36.4
Undecided	0	-	-	-	-
Div. of Math. & Phys. Sci. & Eng.					
Engineering & Pre-Engineering	68	83.8	16.2	60.3	39.7
Other declared majors	27	85.2	14.8	59.3	40.7
Undecided	3	100.0	0.0	66.7	33.3
Undergraduate Studies					
Undecided	66	90.9	9.1	69.7	30.3
General Studies	6	100.0	0.0	50.0	50.0
Individual Studies	0	-	-	-	-
Allied Health	13	100.0	0.0	61.5	38.5
Intensive Education Development	8	62.5	37.5	25.0	75.0
All Departmental Groupings	398	87.4%	12.6%	59.0%	41.0%

[a] Percent having two or more years of the same foreign language.

[b] Percent having less than two years of the same foreign language.

[c] Percent having three or more years of the same foreign language.

[d] Percent having less than three years of the same foreign language.

TABLE 8

YEARS OF FOREIGN LANGUAGE STUDY
BY DIVISION

Division	N	Years of Foreign Language Study			
		Two or More[a]	Less than Two[b]	Three or More[c]	Less than Three[d]
ALSC	19	89.5%	10.5%	52.6%	47.4%
A & H	53	75.5	24.5	49.1	50.9
BSOS	113	92.0	8.0	61.1	38.9
HUCR	22	90.9	9.1	54.5	45.5
MPSE	98	84.7	15.3	60.2	39.8
Undecided	66	90.9	9.1	69.7	30.3
Other[e]	27	88.9	11.1	48.1	51.9
Total	398	87.4%	12.6%	59.0%	41.0%
		χ^2 is not reliable because minimum expected cell frequency is less than 4.		χ^2 (6, N = 398) = 7.36, p = .29	

[a] Percent having two or more years of the same foreign language.

[b] Percent having less than two years of the same foreign language.

[c] Percent having three or more years of the same foreign language.

[d] Percent having less than three years of the same foreign language.

[e] "Other" includes General Studies, Allied Health, and Intensive Educational Development.

TABLE 9

YEARS OF FOREIGN LANGUAGE STUDY
BY CREDITS ATTEMPTED

Credits Attempted	N	Years of Foreign Language Study			
		Two or More[a]	Less than Two[b]	Three or More[c]	Less than Three[d]
Less than 12	17	70.6%	29.4%	29.4%	70.6%
12 to 14	272	88.2	11.8	57.4	42.6
More than 14	109	88.1	11.9	67.9	32.1
Total	398	87.4%	12.6%	59.0%	41.0%
		χ^2 is not reliable because minimum expected cell frequency is less than 4.		χ^2 (2, N = 398) = 10.02, $p < .01$	

[a] Percent having two or more years of the same foreign language.

[b] Percent having less than two years of the same foreign language.

[c] Percent having three or more years of the same foreign language.

[d] Percent having less than three years of the same foreign language.

TABLE 10

YEARS OF FOREIGN LANGUAGE STUDY
BY BILLING RESIDENCE

Billing Residence	N	Years of Foreign Language Study			
		Two or More[a]	Less than Two[b]	Three or More[c]	Less than Three[d]
In-State	311	85.5%	14.5%	55.6%	44.4%
Out-of-State	87	94.3	5.7	71.3	28.7
Total	398	87.4%	12.6%	59.0%	41.0%
		Corrected χ^2 (1, N = 398) = 3.95, $p < .05$		Corrected χ^2 (1, N = 398) = 6.24, $p < .05$	

[a] Percent having two or more years of the same foreign language.

[b] Percent having less than two years of the same foreign language.

[c] Percent having three or more years of the same foreign language.

[d] Percent having less than three years of the same foreign language.

TABLE 11

YEARS OF FOREIGN LANGUAGE STUDY
BY SCHOLASTIC APTITUDE TEST (SAT) SCORES

SAT Scores	Years of Foreign Language Study: Two or More[a]	Less than Two[b]	Three or More[c]	Less than Three[d]
Verbal SAT				
Mean	485	460	490	470
Standard Deviation	82	81	83	80
N of Cases	346	49	234	161
Range	210-740	280-690	210-740	280-690
	t (393) = 2.00, $p < .05$		t (393) = 2.35, $p < .05$	
Math SAT				
Mean	538	498	546	513
Standard Deviation	95	90	98	87
N of Cases	346	49	234	161
Range	200-800	300-660	200-800	300-800
	t (393) = 2.77, $p < .01$		t (393) = 3.46, $p < .001$	
Total SAT				
Mean	1,023	958	1,036	984
Standard Deviation	151	138	156	137
N of Cases	346	49	234	161
Range	470-1430	610-1220	470-1430	610-1370
	t (393) = 2.84, $p < .01$		t (393) = 3.46, $p < .001$	

[a] Values for students having two or more years of the same foreign language.

[b] Values for students having less than two years of the same foreign language.

[c] Values for students having three or more years of the same foreign language.

[d] Values for students having less than three years of the same foreign language.